

REMARKS

Claims 5-14 are pending. Claim 10 has been canceled. Claims 5, 6, 8, and 14 have been amended.

New Matter objections and rejections under 35 U.S.C. §112 and §132

The Examiner objected to what was believed to be new matter in claims 5-14.

Much of what the Examiner found objectionable has been removed from the pending claims. However, to the extent that the Examiner may believe that new matter is still present in the claims, the following is offered.

It is kindly asserted that no new matter was introduced at any point during the prosecution. Contrary to the Examiner's assertion, the specification, as filed, teaches and contemplates a memory card contact structure "compatible with two different receptacles or formats."

The specification explicitly teaches a removable memory card that is used in receptacles of host electronic systems or devices. These are devices such as cellular telephones, music players and other personal electronic equipment. Two specific examples of different receptacles or formats are taught: the MMC card and its associated receptacle, and the SD card and its associated receptacle. The relevant portions are shown here for convenience:

BACKGROUND OF THE INVENTION

This invention relates to a small card containing digital memory, such as a non-volatile flash EEPROM system, having exposed surface electrical contacts that allow easy connection to and removal from a receptacle of a host electronic system or device, particularly portable devices, in order to provide removable electrical connection between the system or device and the memory within the card through the exposed surface contacts of the card.

Small memory cards are increasing in popularity for use in small hand held devices such as cellular telephones, music players and other personal electronic equipment. Memory cards are being made smaller for such applications while the size of their individual external surface electrical contacts are not being reduced in size to any significant degree. This presents a challenge to the design and packaging of such memory cards. In a specific example, an existing commercial Multi-Media Card (MMC) product has been manufactured and sold for a time. The MMC has seven surface contacts extending across a short edge of the rectangular card that also includes a cut-off corner. Evolving applications for

this type of memory card have made it necessary to add several external contacts without increasing the size of the card.

SUMMARY OF THE INVENTION

This has been accomplished by increasing the number of contacts of the row of contacts used on the MMC product while maintaining the position of the row along the short edge of the rectangularly shaped card. This maintains a degree of compatibility between the MMC product and the new card, known as a SD Card product. In order to increase the number of contacts, two contacts are positioned in the space previously occupied by one and another contact is positioned at the cut off corner and set back from the card edge a distance that is greater than other contacts of the row.

Application Pages 1-2 (emphasis added).

Thus, the application explicitly teaches that the positioning of the contacts of the present invention maintains a degree of compatibility between MMC products and SD card products. The memory cards (products) are also explicitly taught “to allow easy connection to and removal from a receptacle of a host electronic system or device.” At the time of the invention, as is taught by the application, it was well known that a host device, for example, a digital camera, had a receptacle designed to accept a specific type or format of memory card, for example an MMC card. The slot or receptacle of the camera was known to have contacts equal in number to those of the card, and the contacts were known to be in the proper location in the receptacle to establish electrical connection between the contacts of the card and the receptacle of the camera.

In addition to the explicit teachings of the specification, the specification also inherently teaches and discloses to one of ordinary skill in the art a memory card contact structure “compatible with two different receptacles or formats” because one of ordinary skill in the art would understand, having read at least the above excerpted portions of the specification, that two preferred embodiments of contact structures with some degree of compatibility, and the respective receptacles are described.

Therefore, claims 5-9 and 11-14, as currently amended, are supported by the specification, as filed, and allowance of these claims is requested.

Claim Rejections Under 35 U.S.C. §103

Claims 5-14 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,565,922 to Anderson ("Anderson").

Claim 5, as amended, recites:

A flat rectangularly shaped memory card, comprising:

two pairs of opposing parallel straight edges forming four corners wherein one of said corners includes an angled edge segment that intersects adjacent ones of the straight edges at acute angles;

a first group of rectangularly shaped recesses formed in a row extending along one of said adjacent straight edges, said group containing electrical contacts at the bottom of the recesses, said group compatible with a first type of memory card receptacle; and

a second group of one or more recesses containing one or more electrical contacts, said first and second group of contacts together compatible with a second type of memory card receptacle.

The Examiner asserts that "Anderson disclose[s] a memory card (12) comprising two different groups of contact terminals (20, 26, Figures 3 & 4)." The Examiner acknowledges that Anderson does not teach the limitation of "said first and second group of contacts together compatible with a second type of memory card receptacle," but nevertheless asserts that this is obvious or otherwise irrelevant based up *Ex Parte Masham*.

Firstly, Anderson teaches a key card, not a memory card. Therefore, not only does Anderson not teach the claimed invention, Anderson is not dealing with the same problem. While this at first may seem like a subtle distinction, the present invention is directed towards a contact structure wherein additional contacts have been added to increase the data throughput in order to store and retrieve larger quantities of data more rapidly. Although the additional contacts are provided, some degree of compatibility is maintained between the new and old cards.

In the memory card of the present invention, there is very limited real estate to accommodate contacts in general, which must be of a certain size to make reliable contact. Unlike many components of the card that can be made smaller, the contacts themselves cannot be significantly reduced in size without comprising the quality and reliability of the electrical connection. This means that there is also limited room for additional contacts. The key card taught by Anderson appears, as most key cards are, to be wallet sized, and therefore to have ample room for many contacts. It is taught that the key card in Anderson is read by receivers to allow a holder access to a building. Anderson Col. 1, lines 5-8. These building access readers are presumably not subject to any significant size limitations. This is unlike the memory card of the present invention, which is taught at page 1, lines 12-15 to be of the type for use in small hand held devices such as cellular telephones, music players, and other personal electronic equipment. A key card as used to allow access to buildings is not the same as a memory card for use in portable electronic devices and does not face the same size and data storage constraints.

Furthermore, regarding claim 5, Anderson does not teach “a first group of rectangularly shaped recesses formed in a row extending along one of said adjacent straight edge” and “a second group of one or more recesses.” The Examiner has not addressed these claim elements at all, but instead has focused on the contacts within the groups of recesses. Claim 7 has similar limitations to the recesses which have also not been addressed by the Examiner.

As mentioned previously, the Examiner acknowledges that Anderson does not teach the claim elements of “a first group ... compatible with a first type of memory card receptacle,” and “a second group of one or more recesses containing one or more electrical contacts, said first and second group of contacts together compatible with a second type of memory card receptacle.”

In order to address these missing limitations, the Examiner essentially dismisses them by citing *Ex Parte Masham*. The Examiner indicates that this is possible because *Masham* holds that “a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitation.” Office Action at page 3.

For the reasons discussed above, Anderson *does not* satisfy the claimed structural limitation, as it does not teach all of the elements of the claim, as required by *Masham*. Therefore, unlike in *Masham*, this is not strictly an issue of intended use.

In addition to not teaching the groups of recesses, claim 5 is drawn to structure underpins and makes the “intended use” possible. This is true independent claim 5 and dependent claim 6, but is especially clear in the context of dependent claim 6, which further limits claim 5 and recites two different contact structures: the MMC contact format and the SD contact format. This is therefore not simply an issue of intended use, as asserted by the Examiner. This can be seen by examining the *Masham* case.

The facts of *Masham* are quite different than the facts of the present situation, and application of the principle recited in *Masham* does not indicate that the prior art teaches all of the presently recited limitations. In *Masham*, the claim was rejected based upon U.S. Patent 4,075,977 to Williams (“Williams”). *Masham*’s only remaining claim, claim 1, recited structure for a mixer or mixing apparatus. As mentioned above, Williams taught all the structural elements of the mixer. *Masham*’s only remaining argument was that the claimed apparatus is “completely submerged in the developer material”; whereas, in Williams’ apparatus, the mixing means is depicted ‘as only being partially submerged in the developer material.’” In *Masham*, the Examiner factually determined that Williams’ mixing device was capable of being totally submerged in the developer material, and *Masham* did not challenge the Examiner’s factual determination.

In other words, because there was no structural difference, there was no debate that the prior art could operate in the alleged manner. Although not discussed in *Masham*, the underlying issue in *Masham* hinges upon the law of inherency. This is also likely the reason that *Masham* did not challenge the Examiner’s factual determination.

Numerous cases have held that for a reference to disclose an element “inherently,” the element “must be *necessarily* present.” *Crown Operations Int’l, Ltd. v. Solutia Inc.*, 289 F.3d 1367, 1377 (Fed. Cir. 2002) (emphasis added). “Inherency ‘may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.’” *Id.*; accord *Rosco, Inc. v. Mirror Lite Co.*, 304 F.3d 1373,

1380 (Fed. Cir. 2002) (reversing judgment of inherent anticipation); *accord In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) (reversing rejection based on inherent anticipation).

In Masham, the prior art device inherently disclosed the claim limitation, because it mixing means was necessarily capable of being partially *or* fully submerged. This is absolutely not the case with the present situation. It is not necessarily the case that the key card of Anderson has a “first and second group of contacts together compatible with a second type of memory card receptacle,” as required by claim 5. To the contrary, it appears the Examiner’s position appears to rely on probabilities or possibilities, as forbidden by *Crown* and *Rosco*. The probability or possibility that Anderson has a “first and second group of contacts together compatible with a second type of memory card receptacle” is insufficient. The mere fact that Anderson may have two sets of contacts that may in some undisclosed, unforeseen, and improbable circumstance result in the aforementioned claim limitation is not sufficient to indicate that it inherently teaches such a thing.

In summary, Ex Parte Masham cannot appropriately be used to dispose of the claim limitations not taught by Anderson.


Claims 6-9 and 11-14 are allowable for the same reasons given above regarding claim 5, as the Examiner’s rejections only specifically addressed claim 5.

Therefore it is kindly asserted that claims 5-9 and 11-14 are in condition for allowance.

Conclusion

Accordingly, it is believed that this application is now in condition for allowance and an early indication of its allowance is solicited. However, if the Examiner has any further matters that need to be resolved, a telephone call to the undersigned attorney at 415-318-1162 would be appreciated.

Respectfully submitted,



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Date

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